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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,356	03/19/2004	Chul Hong Park	10031558-1	9213

7590 11/30/2005
AGILENT TECHNOLOGIES, INC.
Legal Department, DL429
Intellectual Property Administration
P.O. Box 7599
Loveland, CO 80537-0599

EXAMINER

GLENN, KIMBERLY E

ART UNIT	PAPER NUMBER
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2817

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/804,356

Applicant(s)

PARK, CHUL HONG

Examiner

Kimberly E. Glenn

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-9,11-16 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,8,9,11-13,15,16,18 and 19 is/are rejected.
- 7) ☐ Claim(s) 6,7,14 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

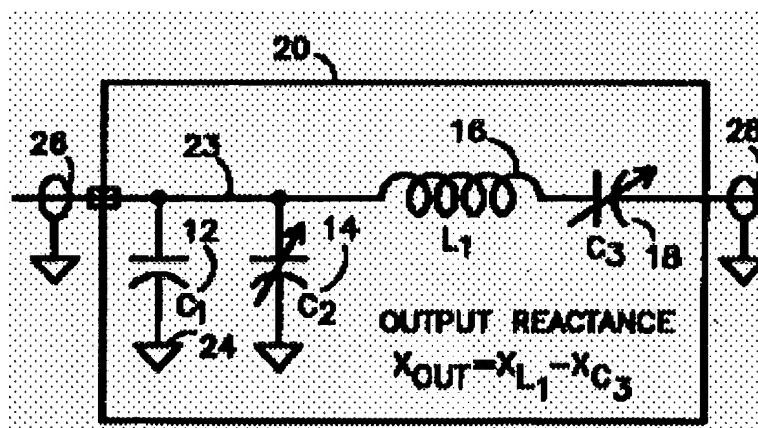
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, 8 and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Sadinsky US Patent 5,424,691.

Sadinsky disclose in prior art figure 2, a network impedance matching circuit 20 comprising of an input node from receiving a RF power input and output node connected to a load. The impedance matching network further contains a fixed impedance namely inductor 16 and shunted capacitor 12. A variable capacitor (varactor) 18 is connected between the input and the output, which is response to the RF power input. The shunt capacitor is connected to RF conductor 23. The method steps to the above-disclosed apparatus are inherent.



Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 9 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sadinsky US Patent 5,424,691 in view of Gikow US Patent 3,569,795.

Sadinsky disclose in prior art figure 2, an network impedance matching circuit comprising of a input node from receiving a RF power input and output node connected to a load. The impedance matching network further contains a fixed impedance namely inductor 16 and shunted capacitor 12. A variable capacitor (varactor) is connected between the input and the output, which is response to the RF power input. The shunt capacitor is connected to RF conductor 23.

Thus, Sadinsky is shown to teach all the limitation of the claim with the exception of the variable capacitor (varactor) being a ferroelectric varactor.

Gikow teach in figure 1, a voltage variable ferroelectric capacitor.

One of ordinary skill in the art would have found to obvious to replace the capacitor 12 of Sadinsky with the voltage variable ferroelectric capacitor as taught by Gikow. The motivation for this modification would have been to provide a capacitor that uses a relatively low control voltage and wide range of control capacity for a low variation in the control voltage.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sadinsky US Patent 5,424,691 in view of Masumiya et al US Patent 6,628,503. (of record)

See the above rejection of claims 1 and 8 for details of Sadinsky reference.

Thus, Sadinsky is shown to teach all the limitations of the claims with the exception of the shunt capacitor being a chip capacitor.

Masumiya et al disclose in figure 1, a chip capacitor comprising of dielectric layers 2, internal electrodes layers 3 and external electrodes 4. (Column 3; line 66 through column 4; line 9)

One of ordinary skill in the art would have found to obvious to replace the capacitor 12 of Sadinsky with the chip capacitor as taught by Masumiya et al. The motivation for this modification would have been to provide a capacitor that has a reduction in the dielectric loss and superior capacity temperature characteristics.

Claims 15, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sadinsky US Patent 5,424,691.

Sadinsky disclose in prior art figure 2, an network impedance matching circuit comprising of a input node from receiving a RF power input provided by a RF power source 10 and output node connected to a load. The impedance matching network further contains a fixed impedance namely inductor 16 and shunted capacitor 12. A variable capacitor (varactor) 18 is connected between the input and the output, which is response to the RF power input. The shunt capacitor is connected to RF conductor 23.

Thus, Sadinsky is shown to teach all the limitation of the claim with the exception an amplifier providing an output signal.

Sadinsky teach in column 3, line 4, that the signal source can be a RF amplifier

One of ordinary skill in the art would have found to obvious to replace the general power source 10 of Sadinsky with RF amplifier.

Sadinsky shown that the RF power source and the RF amplifier provide equivalent functions. Therefore, because these two devices were art recognized equivalents at the time of the invention, one of ordinary skill in the art would have found to obvious to substitute the RF amplifier for the RF power source.

Allowable Subject Matter

Claims 6, 7, 14, 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

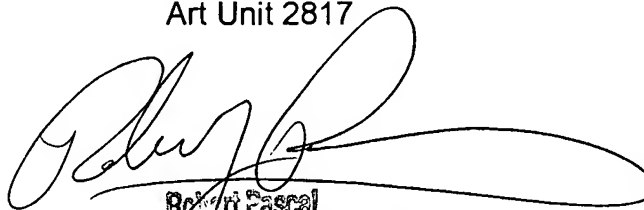
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly E. Glenn whose telephone number is (571)-272-1761. The examiner can normally be reached on Monday-Friday 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

keg

Kimberly E Glenn
Examiner
Art Unit 2817



Robert Pascal
Supervisory Patent Examiner
Technology Center 2800